

# Collaborative Science and Adaptive Management Program

## Purpose

Work with a sense of urgency to collaboratively evaluate current hypotheses and management actions associated with protection and restoration of species of concern, current and future federal and state regulatory authorizations for the SWP and CVP, and other local and state management actions, to improve performance from both biological and water supply perspectives.

## Approach

1. Provide a FORUM for communication among the agencies, NGOs and PWAs;
2. Act as a CATALYST to address the most contentious and urgent management relevant science issues; and
3. Timely COMPILE AND DISSEMINATE INFORMATION for decision makers on contentious and urgent science issues.

FORUM – CSAMP should be a venue where issues, alternative hypotheses, and alternative management approaches can be thoroughly and openly discussed by all involved agencies and stakeholders. It should be a forum for meaningful discussion that promotes understanding, identifies areas of agreement and disagreement, and facilitates better informed management decisions. If an issue is not to be heard, all should understand why. CSAMP is not a decision-making body and should not become an institution in-and-of itself.

CATALYST - CSAMP should (1) be a catalyst for integration of scientific information to inform policy makers and (2) be a venue for proposing and vetting potential changes to management actions and monitoring schema based on such information in order to maximize their effectiveness while minimizing their costs and impacts on society, recognizing that decisions regarding changes must ultimately be made by the agency or agencies with decision-making authority. Part and parcel of this effort, CSAMP should address urgent and contentious issues taking the initial steps to define the issue, define the differences in understanding and areas of agreement and disagreement, promote common understanding (narrow the differences) and fund science where appropriate, and tee up trade-offs for policy makers. If the activity requires a long-term investment, CSAMP should find the appropriate entity to address the issue and report back to CSAMP on a regular basis.

COMPILE AND DISSEMINATE INFORMATION - CSAMP should be the trusted provider of key information. This includes compilation of data, analyses of findings, critical assessment of that information, and synthesis of that information in order to aid policy makers. The information provided should be complete; with the pros and cons as appropriate. CSAMP should not strive for consensus, but it should always provide well thought out information and associated rationale. Members must be able to understand the source and essence of both agreement and disagreement being discussed.

## Scope

CSAMP was originally established, and continues to focus on science and adaptive management issues related to current and future biological opinions for SWP and CVP operations, including the science underlying specific actions contained in the reasonable and prudent alternatives (RPAs). However, CSAMP has identified the need to maintain the flexibility to address emerging science and information needs regarding water management and species of concern in the Delta and upriver, including actions to improve the resiliency of Delta Smelt and salmonids. CSAMP is also committed to coordinating with other programs and technical support, such as the Interagency Ecological Program (IEP), Central Valley Project Improvement Act (CVPIA), NOAA South West Fisheries Science Center (SWFSC), and Delta Science Program (DSP) to avoid duplication, minimize take, and promote collaboration and knowledge transfer.

## Priorities for 2019 and 2020 Calendar Years

The following outlines priorities for the Collaborative Science and Adaptive Management Program (CSAMP). The priorities focus on projects that will benefit targeted species (Delta Smelt, Chinook salmon and steelhead), support funding for these projects and help make water supplies more reliable, consistent with CSAMP's adopted purpose statement.

The highest priority for CSAMP will be to support innovative adaptive management projects (such as reoperating the Suisun Marsh Salinity Control Gates and using flows in the Yolo Bypass to stimulate the food web) that have the potential to yield valuable information that leads to further management actions to improve conditions for targeted species.

CSAMP will also prioritize initiatives such as structured decision making (SDM) and the development of coordinated science plans that advance understanding and inform future decision making.

CSAMP 2019-2020 Priorities are to:

### **1. Complete Current CAMT Investigations and Communicate Findings**

- a. Factors Affecting Delta Smelt Entrainment (Grimaldo) – complete by Sept 2018
- b. Delta Smelt Science Plan (Reed) – complete by Jan 2019
- c. Characterizing the Relationships between Fall Outflow and Survival and Abundance of Delta Smelt (Fleishman) – complete by Jan 2019
- d. Delta Salmon Rearing Habitat Study (SFEI) – complete by April 2019

### **2. Support Implementation of Resiliency Strategies for Delta Smelt and Sacramento Salmonids**

- a. Assist where projects are stuck or otherwise need guidance, including sorting out potential controversy, providing guidance on monitoring, and communicating status and results.

### **3. Support Additional Near-term, No Regrets Salmon Actions**

- a. Identify projects in addition to the resiliency strategy where CSAMP could provide science support, funding and project management recommendations for early recovery actions that benefit both listed and non-listed species upriver and in the Delta .
- b. Use available models to evaluate potential actions.

### **4. Improve Coordination of Salmonid Research in the Delta and Support Development of an Integrated Central Valley Science Plan for Salmonids**

- a. Conduct Salmon workshop follow-up
- b. Coordinate with upstream initiatives
- c. Develop science plan to guide salmon research

### **5. Initiate Conversation Regarding Oversight, Guidance, and Feedback on Monitoring Schemes Targeting the Delta's Natural Resources**

- a. Help establish monitoring designs and protocols necessary to evaluate the effectiveness of adaptive management actions
- b. Support efforts to identify indicators of the health and integrity of Delta ecosystems and communities

- c. Discuss CAMT role, if any, in review of long term fish surveys and sampling schemes to assess status and trends and assess how to maximize the value of dedicated resources.

**6. Advance Decision Support Tools**

- a. Work towards further engagement in the Delta Science Program SDM process for the Delta.
- b. Further CAMT SDM work on Delta Smelt
- c. Advance and employ life cycle models to address management questions

Information developed by CSAMP should inform ongoing regulatory processes, but CSAMP will not engage directly with WIIN, RPA Implementation, Reinitiation of Consultation, or the Water Quality Control Plan update as they each have their own formal processes that CSAMP members are individually engaged in.